

CLAIMS

1-16. (canceled)

17. (currently amended) An ophthalmologic device ~~with eye tracker unit~~ comprising:

an eye tracker unit for compensating for movement of the eye to be examined;

a controllable illumination unit and an observation system;

said illumination unit and observation system being arranged on separate supporting arms;

said device further comprising an image recording unit, an optical imaging system and an output unit. all being connected to a central control unit.

18. (previously presented) The ophthalmologic device according to claim 17, wherein the separate supporting arms of the illumination unit and of the observation system are swivelable independent of one another and have transmitter elements.

19. (previously presented) The ophthalmologic device according to claim 17, further comprising a zoom system and a magnification changer and wherein transmitter elements are additionally arranged at said zoom system and at said magnification changer.

20. (previously presented) The ophthalmologic device according to claim 17, wherein the eye tracker unit has a measurement repetition rate and an image area which detects the eye to be examined until the edge of the iris, and the optical axis of the eye tracker unit corresponds to that of the observation system.

21. (previously presented) The ophthalmologic device according to claim 17, wherein a digital high-resolution camera serves as said image recording unit and has a high image rate.

22. (previously presented) The ophthalmologic device according to claim 17, wherein the image rate of the digital high-resolution camera serving as image recording unit operates synchronous with the image rate of the digital illumination unit.

23. (previously presented) The ophthalmologic device according to claim 17, wherein the central control unit has a user interface with conventional input devices such as keyboard, mouse, trackball, joystick, or the like, and has different control modes and evaluating modes.

24. (previously presented) The ophthalmologic device according to claim 17, wherein the output unit is a monitor and/or printer.

25. (previously presented) The ophthalmologic device according to claim 17, wherein the swiveling arms of the illumination unit and observation device have an angle transmitter and/or an actuating drive.

26. (currently amended) The ophthalmologic device according to claim 17, further comprising a zoom system and a magnification changer and wherein the zoom system and the magnification changer have a transmitter element and/or an actuating drive.

27. (previously presented) The ophthalmologic device according to claim 17, wherein parameters of the illumination pattern are stored by the central control unit and displayed in a display unit on the monitor or, by mirroring in data, in the viewer or eyepiece.

28. (currently amended) A method for operating an ophthalmologic device ~~with eye tracker unit~~ comprising the steps of:

providing an eye tracker unit for compensating for movement of the eye to be examined;
generating different illumination patterns and projecting them on the eye;
shifting said illumination patterns in direction and amount, rotating them around freely selectable reference points, and scaling them with respect to size and line width;
said illumination patterns being freely selectable with respect to their radiating direction relative to the optical axis and being held so as to be fixed at a point on the eye in real time by tracking without movement.

29. (previously presented) The method according to claim 27, wherein different illumination patterns for identifying and marking regions of interest (ROI) can be held stationary online on the eye and monitor and, after the relevant position parameters of the system have been stored, can be used later for finding the ROI again.

30. (previously presented) The method according to claim 28, wherein additional parameters such as magnification, pattern parameters, brightness, coordinates, time, etc. can be stored in addition to the relevant position parameters for finding the ROI again.

31. (previously presented) The method according to claim 28, wherein suitable scaled illumination patterns are projected on the eye at variable radiating angles and the calculation of the biometric data is carried out by triangulation while taking into account the refracting media of the eye.

32. (previously presented) The method according to claim 28, wherein searching of illumination patterns in digital images can be carried out by differential image recordings in that two or more images which are recorded in direct succession in time with a change exclusively in the illumination pattern are subtracted from one another and all interfering spatially fixed image information is accordingly eliminated.